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such as a thermoplastic elastomer, fluorinated ethylene propylene, or other appropriate material. Exterior portion 520 may provide the flexibility needed to protect cable 526 from excessive wear at its interface with strain relief 500 and the housing.

Interior portion 520 may be located in a housing. This housing may enclose a power transformer or converter, wired or wireless data or communication circuitry, or other types of electronics circuitry. The color of exterior portion 520 may be made to match a color of the housing or cable.

In other embodiments of the present invention, strain relief 500 may be formed using a three step process. In these embodiments, the additional step is a first molding step where cables 526 and 516 are covered. The following two steps provide the remainder of interior portion 510 and exterior portion 520. In various embodiments of the present invention, cables 526 and 516 may be one cable or they may be multiple cables.

FIG. 6 illustrates a strain relief 600 according to an embodiment of the present invention. Strain relief 600 includes interior portion 610 and exterior portion 620. Interior portion 610 may provide fire protection, while exterior portion 620 may provide a flexible strain relief. A side of a housing, shown here by dashed lines, may fit in the gap or slot 628. Again, the housing may house transformers, data communications circuitry, and other types of electronic circuitry.

The above description of embodiments of the invention has been presented for the purposes of illustration and description. It is not intended to be exhaustive or to limit the invention to the precise form described, and many modifications and variations are possible in light of the teaching above. The embodiments were chosen and described in order to best explain the principles of the invention and its practical applications to thereby enable others skilled in the art to best utilize the invention in various embodiments and with various modifications as are suited to the particular use contemplated. Thus, it will be appreciated that the invention is intended to cover all modifications and equivalents within the scope of the following claims.

What is claimed is:

1. A cable plug comprising:

a strain relief that allows passage of a cable;

an assembly comprising a nonconductive insulative housing and power and ground conductors, the assembly further comprising passages, the passages connected to the conductors;

a plurality of contact pins located in passages in the assembly and having a contact portion extending beyond the assembly such that contact may be made with opposing contacts in a compatible connector receptacle;

a circuit board fixed to the assembly and contact pins;

a light-emitting diode fixed to the circuit board;

a magnetic attraction plate positioned around the contact portion of the contact pins; and

a cylindrical unitary housing made from a single piece of material and having a first opening for the cable and a second opening for the attraction plate, the attraction plate and cylindrical unitary housing enclosing the assembly, the plurality of contacts, the circuit board, and the light-emitting diode,

wherein the magnet attraction plate and the contact portion protrude through a second opening in the unitary housing.

2. The cable plug of claim 1 wherein the assembly further comprises a metal tab formed from an end of the ground conductor.

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3. The cable plug of claim 1 wherein the contact pins comprise spring-biased pins.

4. The cable plug of claim 1 wherein the contact pins comprise a center pin, two ground contact pins, and two power supply contact pins.

5. The cable plug of claim 1 further comprising a dust cover over the attraction plate.

6. The cable plug of claim 1 further comprising exit holes in the housing, wherein the exit holes are filled with an adhesive.

7. The cable plug of claim 4 wherein the power supply contact pins are on each side of the center pin, and the ground contact pins are on each side of the power supply pins away from the center pin.

8. The cable plug of claim 5 further comprising a front plate between the assembly and a front portion of the cable plug.

9. A cable plug comprising:

a unitary housing made from a single piece of material and having a cylindrical shape and having a first opening at an end to accept a cable;

an assembly housed in the unitary housing and comprising a nonconductive housing and power and ground conductors, the power and ground conductors coupled to the cable;

a circuit board coupled to the assembly;

a plurality of contacts coupled to the circuit board;

a magnetic attraction plate positioned around the plurality of contacts, the attraction plate and the plurality of contacts protruding through a second opening in the unitary housing;

a first light-emitting diode coupled to the circuit board;

a first light pipe over the first light-emitting diode; and

a first light insulator surrounding the first light-emitting diode and the first light pipe to limit illumination in a first and second direction and to allow illumination in a third direction,

wherein a third opening in the unitary housing is aligned with the first light-emitting diode in the third direction.

10. The cable plug of claim 9 further comprising a second light pipe in the third opening in the unitary housing.

11. The cable plug of claim 9 further comprising:

a second light-emitting diode coupled to the circuit board;

a second light pipe over the second light-emitting diode; and

a second light insulator surrounding the second light-emitting diode and the second light pipe to limit illumination in the first and second direction and to allow illumination in a fourth direction, the fourth direction the opposite direction as the third direction,

wherein a fourth opening in the unitary housing is aligned with the second light-emitting diode in the fourth direction.

12. The cable plug of claim 9 wherein the unitary housing is formed of aluminum.

13. The cable plug of claim 9 wherein the circuit board is a flexible circuit board.

14. The cable plug of claim 9 wherein the unitary housing and the attraction plate form an enclosure that encloses the assembly, the circuit board, the plurality of contacts, the first light-emitting diode, and the first light insulator.

15. The cable plug of claim 10 wherein the second light pipe is formed using an adhesive.

16. A cable plug comprising:

a unitary housing made from a single piece of material and having a cylindrical shape and having a first opening at an end to accept a cable in a first direction;